The Tourism Monographs
Issue #1: April, 1994

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THE ECONOMIC IMPACT OF TOURISM IN NORTHERN ONTARIO *1990*

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Ministry of Culture, Tourism and Recreation

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TABLE OF CONTENTS

Page

Introduction 1
- *Purpose* 1
- *Methodology* 1
- *Definitions* 2

Tourism In Northern Ontario 4
- *The Travellers* 4
- *Sub-Regions* 4
- *Items of Expenditure* 5

Economic Impacts 5
- *Impacts from Spending in the North* 5
- *North/South Leakages* 5
- *Sectoral Impacts* 9
- *Impacts by Origin of Visitors* 9

Tables
- *Table 1: Number of Visitors in Ontario, by Region & Origin* 11
- *Table 2: Tourism Expenditures in Ontario, by Region & Origin* 11
- *Table 3: Tourism Expenditures by Region & Item of Expenditure* 12
- *Table 4: Regional Population & Employment* 12
- *Table 5: Indexes of Tourism Spending Per Capita & Per Employee* 12
- *Table 6: The Economic Impact of Tourism in the North & the Province* 13
- *Table 7: Tourism Related Direct, Indirect & Induced Industry Output* 14
- *Table 8: The Economic Impact of Tourism in the North, by Sector* 15
- *Table 9: The Economic Impact of Tourism in the North, by Origin of Visitors* 16

Figures
- *Figure 1: Regional Employment Impacts, Ontario, 1990* 7
- *Figure 2: Regional Employment By Sector* 8

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INTRODUCTION

Purpose

Tourism represents one of the world's largest industries. Estimates[1] suggest that in 1990, tourism activity generated US$2.7 trillion receipts for the industry, representing 12% of the world's Gross Product.

Domestic and international tourism are both important generators of employment, income, government revenues and foreign exchange - albeit domestic tourism can only lay an indirect claim to the balance of payments when it is viewed as an alternative to international travel. Although tourism has become an important vehicle for securing foreign exchange for both industrialized and developing nations, for the former countries tourism has also become a vehicle for addressing unemployment and regional economic disparities.

The purpose of this paper is to examine the economic impact of tourism expenditures in Northern Ontario. The expenditure data used in this report come from three sources: Statistics Canada's Canadian Travel Survey (for interprovincial travel) and International Travel Survey (for international travel), and MCTR's Ontario Travel Monitor Survey (for Ontarians' travel in Ontario). These data are presented on tables 1-3. Since the purpose of this report is not to present an analysis of Northern Ontario's tourism markets, only the demand data necessary to accommodate the economic impact analysis are presented here. The reader is referred to other Ministry reports for regional or provincial market profiles.

Methodology

The tool used in this report for the conduct of the economic impact analysis is an input-output model (MTR-12) that uses Statistics Canada's I-O tables for Ontario; these tables provide economic details for 43 commodities and 25 industries. Input-output analysis is now widely used across the world as the preferred tool for the study of the economic impacts, not only of tourism expenditure, but also of any other type of expenditure.

The technique has a number of advantages when compared to alternative methodologies. First, it links all the sectors of the economy and as such identifies the sectoral inter-dependencies that exist within the economy. Second, the input-output structure enables the researcher to construct a model to suit the specific purpose at hand. Third, the technique allows for a "policy neutral" analysis as all sectors are treated in the same uniform manner, with the only value judgement applied at the initial industry aggregation level. Finally, input-output analysis enables the researcher to examine impacts at three levels: direct, indirect and induced.

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1 Travel Industry World Yearbook - The Big Picture, 1992, S. R. Waters

The MCTR model used here uses the 1984 I-O tables for Ontario. The model is closed with respect to the household and imports sectors, but not with respect to the investment or government sectors. Since sub-provincial I-O tables do not exist, the model calculates regional impacts based on a region's share of the Ontario economy and its proximity from the region where the tourism spending occurred.

Definitions

Direct impacts: describe the quantity and distribution of intermediate and primary inputs required to sustain the initial level of tourism expenditure. These intermediate and primary inputs are purchased by the direct suppliers of tourism as well as by the suppliers that receive the first round of expenditure of these direct tourism suppliers.

Indirect impacts: the increase in the output of one sector causes the outputs of other sectors that are linked to it to increase. These secondary effects caused by the inter-sectoral linkages are know as indirect effects/impacts.

Induced impacts: any I-O table contains 4 final demand sectors, the household expenditure sector, the investment expenditure sector, the government expenditure sector and the export sector. Any increase in a sector's output generates income within that sector and this is spent by households, business and government on consumption, investment and government's own output. This increased spending generates economic impacts known as induced impacts. As is the case with most I-O models, the MCTR model used here contains only the induced effects of increased household spending on consumer goods and services.

North-Western Ontario includes: The districts of Rainy River, Kenora (up to the central time zone) and Thunder Bay.

North-Eastern Ontario includes: The districts of Algoma, Kenora (east of central time zone), Cochrane, Sudbury, Timiskaming, Nipissing, Manitoulin Parry Sound, and Sudbury RM.

Food & Beverage contains expenditures on any item of food or beverage purchased by the travellers at restaurants, taverns, bars, grocery stores, liquor stores, etc.

Private Transportation contains expenditures on car rentals, boat rentals, private airplane rentals, and gasoline, oil, parking fees and repairs required for these vehicles.

Public Transportation contains expenditures on air fares, trains, inter-city/regional busses, taxis and local public transportation.

Accommodation contains expenditures on hotels, motels, resorts, commercial cottage, camp grounds, etc.

Recreation contains expenditures on cultural facilities (e.g. theatres), zoos, recreational clubs, cabarets, sport facilities, amusement facilities, etc.

Retail/Other contains expenditures on retail goods and services purchased by travellers.

Economic Impacts: Tourism expenditures create two types of impacts for each region. The first impact is related to the tourism expenditure incurred in a specific region, say, region A. The second impact is related to the tourism expenditure incurred in, say, region B, which feeds back, through the production process, to region A. For example, tourism expenditure in Metro Toronto have economic implications for the North as some of the items purchased by the Metro Toronto travellers are produced in the North. This paper examines both types of impacts separately.

TOURISM IN NORTHERN ONTARIO

The Travellers In 1990, 12% (or 16.2 million) of Ontario's total travellers visited the North. Most of these Northern visitors came from Ontario (85.2%), followed by US (11.4%), Other Provinces (2.8%) and Other Countries (0.7%).

Although in absolute numbers tourism in the North appears small when compared to the size of the provincial tourism sector (see Tables 1 and 2), this conclusion is reversed when tourism receipts and travellers to the North are expressed in terms relative to this region's population or economy.

For example, in 1990, the North accounted for 7.0% of Ontario's total employment and 8.0% of Ontario's population. As indicated above, the region's share of Ontario's visitors was 11.9% (or 1.5 times its population share) and of expenditures 13.3% (or 1.7 times its population share). In dollar terms, in 1990, the North received $2,710 of tourism expenditures per capita, while the province received $1,666 of tourism expenditures per capita. Tourism expenditures per capita and per employee for the North and the province are shown in Table 5.

Table 2 reveals that the North's share of provincial tourism expenditures (13.3%) is higher than the region's share of provincial person trips (11.9%), implying that in general visitors to the North spent, on average, more than the visitors to the province as a whole.

Sub-Regions North-Eastern Ontario received in 1990 the lion's share (74.3%) of the North's travellers. The two regions differ not only in terms of total volumes of travellers, but also with respect to the composition of their travellers (see Table 1).

For example, North-Eastern Ontario relied more heavily on the Ontario market (90%) than North-Western Ontario (71%). Further, although North-Eastern Ontario received most of the overseas (83.6%) and American (51.2%) visitors to the North, North-West depended more heavily on the American market than North-Eastern Ontario (21.7% of the visitors to North-Western Ontario come from the USA as opposed to 7.8% for North-Eastern Ontario).

Although North-Eastern Ontario accounted for 4.8% of Ontario's total employment and 5.8% of Ontario's population, its share of tourism expenditures and trips was almost double than its population share. Similarly, North-Western's share of employment was 2.2% and of population 2.4%. As indicated earlier this region's share of tourism expenditures and trips was almost 70% larger than its population and employment shares (see Tables 1, 2 and 5).

Table 2 reveals that North-Western's share of tourism expenditures was higher than its share of person trips. This implies that the North-Western region received tourists whose spending levels per trip are, on average, higher than those who visit the North as a whole.

Items Of Expenditure

The single largest item of tourism expenditure in the North was "Food & Beverage" (30.8%), followed by "Private Transportation" (18.1%), "Public Transportation" (17.6%), "Accommodation" (13.2%), "Retail/Other" (11.0%) and "Recreation" (9.2%).

"Food & Beverage" was also the largest item of expenditure at the sub-regional level, but the two sub-regions differed in their distribution of the remaining expenditures (see Table 3), the most noticeable difference being that between "Accommodation" and "Recreation". In particular, visitors to the North-West spent a larger amount of their travel budget on these two items, than the visitors to the North-East. As we will see later, these differences have implications in terms of economic impacts, since taxes, employment and inter-industry outputs differ among the various sectors.

ECONOMIC IMPACTS

Impacts from Spending In the North

The above noted tourism expenditures are estimated to have generated a number of economic impacts in Northern Ontario, some of which are retained within the region's boundaries and some of which are captured by other parts of the province. Similarly, tourism expenditure in areas of the Province other than the North also generated economic impacts for the North through the production and distribution process.

Table 6 shows the economic impacts of tourists' spending in the North as well as anywhere else in Ontario. In 1990, 24,902 person years of direct employment were generated as a result of tourism spending in the North, $1 billion of direct GDP and $359 million in total taxes for all levels of government.

In addition to the direct impacts, indirect and induced effects generated another 5,251 person years of employment in the North and 37,079 person years of employment in the rest of the province. The direct employment impacts are shown in Figure 1. Figure 2 compares these employment impacts to other Northern industries.

Similarly, in addition to the direct GDP impacts in the North, indirect and induced effects generated another $294 million of GDP in the North and $2,350 million in the rest of the province.

North/South Leakages

As indicated above, tourism expenditures in the North generated economic impacts not only for the region, but also for the rest of the province. In other

words, not all of the economic impacts generated by the tourists' expenditures in the North were retained within the Northern economy. Line (b) in Table 6 shows the total impacts retained within the Northern economy, while line (c) shows the total impacts that tourists' spending in the North generated for the province as a whole.

Overall, in 1990, the North retained 44.8% of the total employment impacts and 38.6% of the total GDP impacts.

An explanation as to why the North retains only half of the impacts generated by tourists' spending in the region is provided in Table 7. This table shows the total industry output that was required to meet the 1990 level of tourism demand in the North. That is, in order to generate the $2.2 billion of goods and services consumed by the travellers to the North, a total of $5.4 billion of gross sectoral output throughout the province had to be produced. As can be seen in Table 7, only 32.4% of that total gross output was produced in the North.

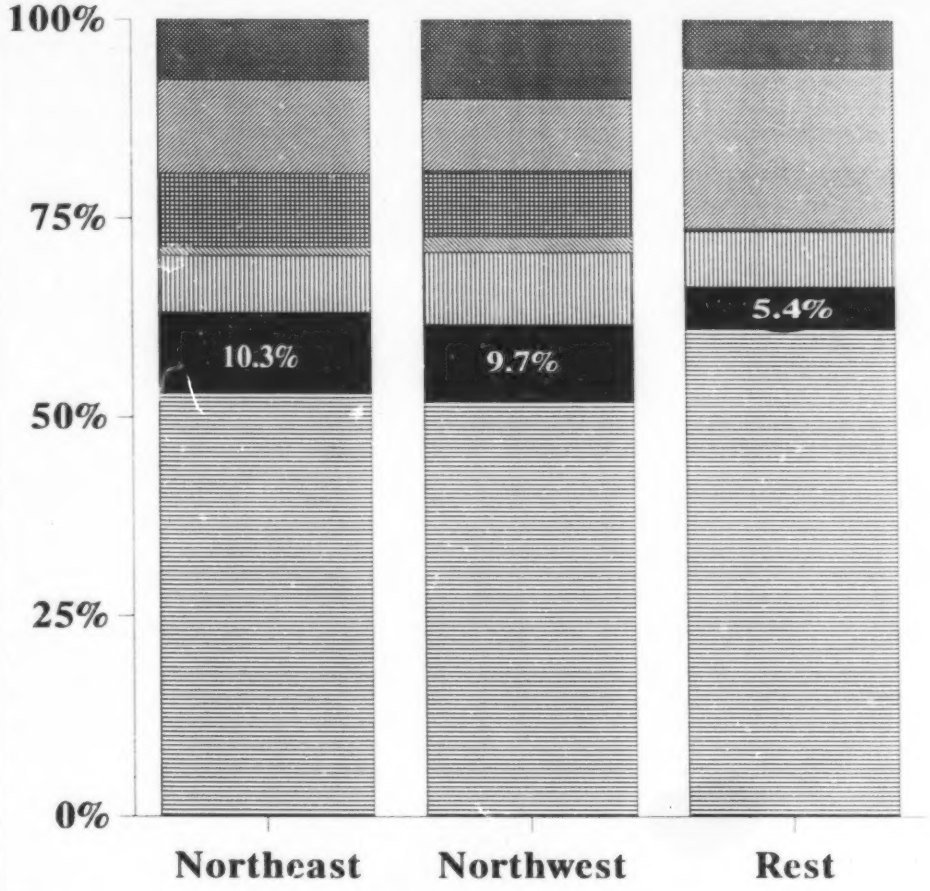
There were only six commodities whose output was mostly (i.e. more than 50%) produced in Northern Ontario. These were:

Forestry	(69.3% was produced in the North)
Utilities	(68.7% " " " " ")
Mining	(65.5% " " " " ")
Services	(57.8% " " " " ")
Trade & Finance	(53.0% " " " " ")
Lumber	(52.3% " " " " ")

From the remaining 16 industries' output, the North produced, on average, only 5.5% and it imported the remaining 94.5% from other parts of the province.

As tourism spending in the North benefits other parts of the province, so does the North benefit from tourism spending in other parts of the province. Table 6, line (d), shows the total benefits to the North from tourism spending anywhere in Ontario. In brief, this spending generated 42,233 person years of employment, $1,971 million of GDP and $548 million of tax revenues. On balance, therefore, Northern Ontario lost 37,079 person years of employment to the rest of the province but in return received 12,080 from spending elsewhere in the province for a net loss of 24,999 person years of employment.

FIGURE 1
Regional Employment Impacts, Ontario 1990



Source: MTR-12; Statistics Canada, special tabulations
*Utilities includes: Utilities, Transport. & Communications

FIGURE 2

Regional Employment By Sector 1990

	North East	North West	Rest
Public Administration	7.6%	10.0%	6.1%
Manufacturing	11.8%	9.1%	20.2%
Mining	9.2%	8.2%	0.2%
Forestry	1.1%	2.0%	0.1%
Construction	6.3%	5.5%	6.6%
Utilities & Transportation	7.1%	9.1%	7.0%
TOURISM	10.3%	9.7%	5.4%
Other	46.6%	46.5%	54.4%

Source: Statistics Canada, Labour Force Survey

Sectoral Impacts

Table 8 shows the economic impacts generated by the tourists' spending in each of the sectors that received that spending. Food & Beverage was the sector that received most of the tourists' spending and as a consequence generated the largest number of person years of employment and GDP in Ontario. The Retail sector, however, generated the most taxes ($94.4 mil.) in the North and the Accommodation sector generated the most jobs for the Northern economy (9,716 person years), i.e. these jobs were retained in the North.

Province-wide, the amount of tourists' spending that was required to generate a person year of employment in each of the tourism related sectors was as follows:

Private Transportation:	$45,403
Food & Beverage:	$37,695
Public Transport:	$35,881
Retail/Other:	$33,329
Recreation/Entertainment:	$22,972
Accommodation:	$22,902

As far as the North was concerned, the amount of tourists' spending required to generate a person year of employment in the North was as follows:

Private Transportation:	$1,167,630
Food & Beverage:	$573,456
Public Transport:	$54,705
Retail/Other:	$49,335
Recreation/Entertainment:	$30,406
Accommodation:	$30,362

The above figures indicate that per dollar of tourism spending in the North, the Accommodation sector generates the largest employment impacts and the Private Transportation sector the lowest. This is not surprising as the industries indirectly involved in the Private Transportation sector have high wages and are in general not present in the North. This is why the indirect and induced impacts of the Private Transportation sector in the North are negative (see Table 8).

Impacts by Origin of Visitors

Table 9 shows the economic impacts by origin of visitors. Since Ontarians accounted for most of the tourists' spending in the North, they also accounted for most of the employment (82%), the GDP (83%) and the taxes (81%) generated by that spending province-wide as well as in the North.

On average, Overseas visitors to the North spent $328 per trip, residents from Canadian provinces other than Ontario spent $165 per trip, Ontarians spent $115 per trip and Americans spent $111 per trip.

The amount of tourism spending from each of these origins that was needed

to generate one person year of employment province-wide was as follows:

Ontarians:	$33,932
Other Canadians:	$32,992
Overseas:	$31,722
US residents:	$28,664

The amount of spending that was needed to generate a person year of employment in the North was as follows:

Ontarians:	$79,191
Other Canadians:	$76,450
Overseas:	$54,759
US residents:	$50,732

The above numbers imply that per dollar of tourism spending in the North, Americans and Overseas visitors have a higher employment impact than Ontarians or other Canadians. This is primarily so because of the differences in the types of tourism products purchased by the various travellers. For example, 19% of Ontarians' spending in the North went to the Private Transportation sector and 9.7% to the Accommodation sector. For the Americans, 5.5% of their spending went to Private Transportation and 37.3% to the Accommodation sector. Since the Accommodation sector has lower wages than the Private Transportation sector, the amount of spending needed to generate one person year of employment in the former sector is thus lower.

TABLE 1[2]: NUMBER OF VISITORS IN ONTARIO
By Region & Origin, 1990
(In 000's)

Origin / Destination	Ontario	U.S.A.	Other Provinces	Other Countries	Grand Total
North East (N.E.)	12,715	1,108	195	107	14,125
As % of Gr. Total N.E.	90.0	7.8	1.4	0.8	100.0
As % of North Total	78.6	51.2	37.1	83.6	74.3
As % of Ontario Total	9.8	4.8	4.9	6.0	8.9
North West (N.W.)	3,460	1,054	331	21	4,866
As % of Gr. Total N.W.	71.1	21.7	6.8	0.4	100.0
As % of North Total	21.4	48.8	62.9	16.4	25.6
As % of Ontario Total	2.7	4.5	8.4	1.2	3.1
North Total	16,175	2,162	526	128	18,991
As % of Gr. Total North	85.2	11.4	2.8	0.7	100.0
As % of Ontario Total	12.4	9.3	13.3	7.1	11.9
Ontario Total	130,064	23,186	3,950	1,793	158,993

TABLE 2[2]: TOURISM EXPENDITURES IN ONTARIO
By Region & Origin, 1990
(In $Millions)

Origin / Destination	Ontario	U.S.A.	Other Provinces	Other Countries	Grand Total
North East (N.E.)	1,417	119	40	33	1,608
As % of Gr. Total N.E.	88.1	7.4	2.5	2.1	100.0
As % of North Total	76.0	50.0	46.0	78.6	72.1
As % of Ontario Total	11.4	5.6	4.9	2.3	9.6
North West (N.W.)	447	119	47	9	621
As % of Gr. Total N.W.	71.9	19.1	7.6	1.4	100.0
As % of North Total	24.0	50.0	54.0	21.4	27.9
As % of Ontario Total	3.6	5.6	5.7	0.6	3.7
North Total	1,864	238	87	42	2,229
As % of Gr. Total North	83.5	10.7	3.9	1.9	100.0
As % of Ontario Total	15.0	11.2	10.6	3.0	13.3
Ontario Total	12,455	2,118	821	1,407	16,801

2 Source: Statistics Canada - International Travel Survey; MCTR - Ontario Travel Monitor Survey; Statistics Canada - Canadian Travel Survey; MCTR - 1985 Ontario Exit Survey.

TABLE 3[2]: TOURISM EXPENDITURE IN ONTARIO
By Region & Type of Expenditure, 1990
(In $Millions)

	Public Transport	Private Transport	Accom.	Food & Beverage	Recreation	Retail/ Other
NORTH EAST **As % of NE's Total**	293 18.2%	288 17.9%	195 12.1%	519 32.3%	128 8.0%	185 11.5%
NORTH WEST **As % of NW's Total**	100 16.1%	116 18.7%	100 16.1%	168 27.1%	77 12.4%	60 9.7%
TOTAL NORTH **As % of Region's Total**	393 17.6%	404 18.1%	295 13.2%	687 30.8%	205 9.2%	245 11.0%

TABLE 4: REGIONAL POPULATION & EMPLOYMENT, 1990

Region	Population[3]	Employment[4]	Labour Force
North East (N.E.) As % of North Total As % of Ontario Total	581,895 70.8 5.8	238,000 68.4 4.8	261,000 68.9 5.0
North West (N.W.) As % of North Total As % of Ontario Total	240,555 29.2 2.4	110,000 31.6 2.2	118,000 31.1 2.2
North Total As % of Ontario Total	822,450 8.2	348,000 7.0	379,000 7.2
Ontario Total	10,084,885	4,937,000	5,268,000

TABLE 5: INDEXES OF TOURISM SPENDING PER CAPITA & PER EMPLOYEE

Region	Per Capita Tourism Expenditures	Per Employee Tourism Expenditures	Visitors Per Employee
North East	$2,763	$6,756	59.3
North West	$2,582	$5,645	44.2
Total North	$2,710	$6,405	54.6
Total Ontario	$1,666	$3,403	32.2

3 1991 figures; source - 1991 Census.

4 Source: Statistics Canada, Labour Force Survey

TABLE 6[5]: THE ECONOMIC IMPACT OF TOURISM EXPENDITURE IN THE NORTH & THE PROVINCE 1990

	North East	As % Of North East's Total	North West	As % Of North West's Total	North Total	As % Of North's Total
Employment (Pers. Yrs)						
a. Direct (in the North)	17,394	10.3%	7,508	9.7%	24,902	10.2%
b. Total in the North	20,988	12.5%	9,165	11.8%	30,153	12.3%
c. Total Province-wide	47,504	-	19,728	-	67,232	-
d. Total in the North from tourism spending anywhere in Ontario	29,671	17.7%	12,562	16.2%	42,233	17.2%
GDP (Value-Added) ($Mil.)						
a. Direct	721		279		1,000	
b. Total in The North	922	N.A.	372	N.A.	1,294	N.A.
c. Total Province-wide	2,412		938		3,350	
d. Total in the North from tourism spending anywhere in Ontario	1,410		561		1,971	
Taxes ($Mil.)						
a. Total taxes in the North from tourism spending in the North	243		116		359	
Federal	152	N.A.	80	N.A.	232	N.A.
Provincial	72		28		100	
Municipal	19		8		27	
b. Total taxes in the North from tourism spending anywhere in Ontario	394		154		548	
Federal	244		95		339	
Provincial	116		46		162	
Municipal	34		13		47	
Tourism Expenditures ($Mil.)	1,608	N/A	621	N/A	2,229	N/A

*N.A. = Not Available; N/A = Not Applicable

5 Source: MTR-12; an economic impact model for tourism expenditures based on Statistics Canada's provincial input/output matrix.

TABLE 7
Tourism Related Direct, Indirect & Induced Industry Output
By Region of Impact, 1990

INDUSTRY	Northern Output ($Mil.)	Provincial Output ($Mil.)	Percent of Output Produced in the North
Agriculture	8.2	199.6	4.1%
Fishing	0.1	0.83	12.0%
Food & Beverage	31.9	862.5	3.7%
Knitting & Textiles	0.1	29.9	0.3%
Furniture	0.05	9.92	0.5%
Printing & Publishing	2.72	78.77	3.5%
Transportation Equipment	6.29	616.26	1.0%
Non-Metallic Minerals	0.96	22.93	4.2%
Chemicals & Chemical Products	1.05	97.9	1.1%
Construction	3.1	65.21	4.8%
Trade & Finance	456.3	860.4	53.0%
Forestry	5.8	8.37	69.3%
Mining	6.5	9.92	65.5%
Lumber	3.54	6.77	52.3%
Paper & Allied Products	15.4	66.85	23.0%
Primary Metals	10.0	85.97	11.6%
Machinery & Equipment	0.37	21.55	1.7%
Petroleum Products	5.86	66.84	8.8%
Utilities	550.12	801.3	68.7%
Other Manufacturing	3.75	178.7	2.1%
Services	640.6	1,107.7	57.8%
Other	11.53	241.76	4.8%
TOTAL	1,764.2	5,440.0	32.4%

TABLE 8
THE ECONOMIC IMPACT OF TOURISM EXPENDITURE IN THE NORTH
By Sector, 1990

	Private Transport	Public Transport	Accommod.	Food & Beverage	Recreation/ Entertain.	Retail/ Other
Employment (Person Years)						
• Total Province Wide	8,898	10,953	12,881	18,225	8,924	7,351
• Total In The North	346	7,184	9,716	1,198	6,742	4,966
• Direct (in the North)	1,487	4,672	7,061	3,775	4,901	3,007
Income (GDP) ($Millions)						
• Total Province Wide	515.6	576.3	501.6	978.1	348.6	430.0
• Total In The North	20.4	382.4	297.2	68.9	205.5	320.9
• Direct (in the North)	119.2	201.9	145.0	271.6	100.8	161.0
Total Taxes In the North ($Millions)	8.0	74.0	69.1	64.8	48.1	94.4
• Federal	5.4	46.2	42.9	56.0	29.9	51.8
• Provincial	2.0	23.4	21.6	6.3	15.0	31.9
• Municipal	0.6	4.4	4.6	2.5	3.2	10.7

TABLE 9
THE ECONOMIC IMPACT OF TOURISM EXPENDITURE IN THE NORTH
By Origin of Visitors

	U.S.A.	Overseas	Ontario	Other Canada
Employment (Person Years)				
• Total Province Wide	8,338	1,324	54,933	2,637
• Total In The North	4,711	767	23,538	1,138
• Direct (in the North)	3,683	546	19,690	984
Income (GDP) ($Millions)				
• Total Province Wide	377.2	65.0	2,780.2	127.5
• Total In The North	171.1	33.4	1,044.2	45.6
• Direct (in the North)	110.7	20.2	831.0	37.1
Total Taxes In the North ($Millions)	46.0	8.6	290.8	13.5
• Federal	29.3	5.3	189.1	8.6
• Provincial	13.3	2.6	80.8	3.8
• Municipal	3.4	0.7	20.9	1.1